OIPE JC08
JUN 04 2004
PATENT & TRADEMARK OFFICE

FIG. 1

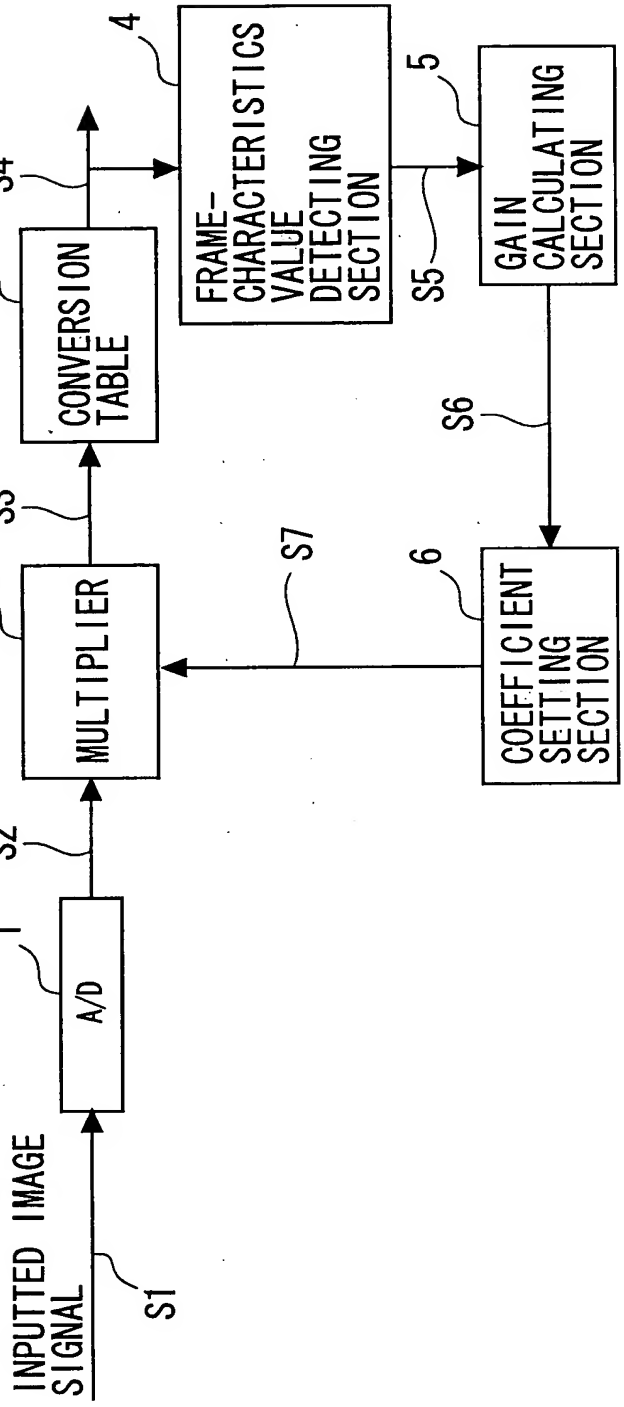


FIG. 2

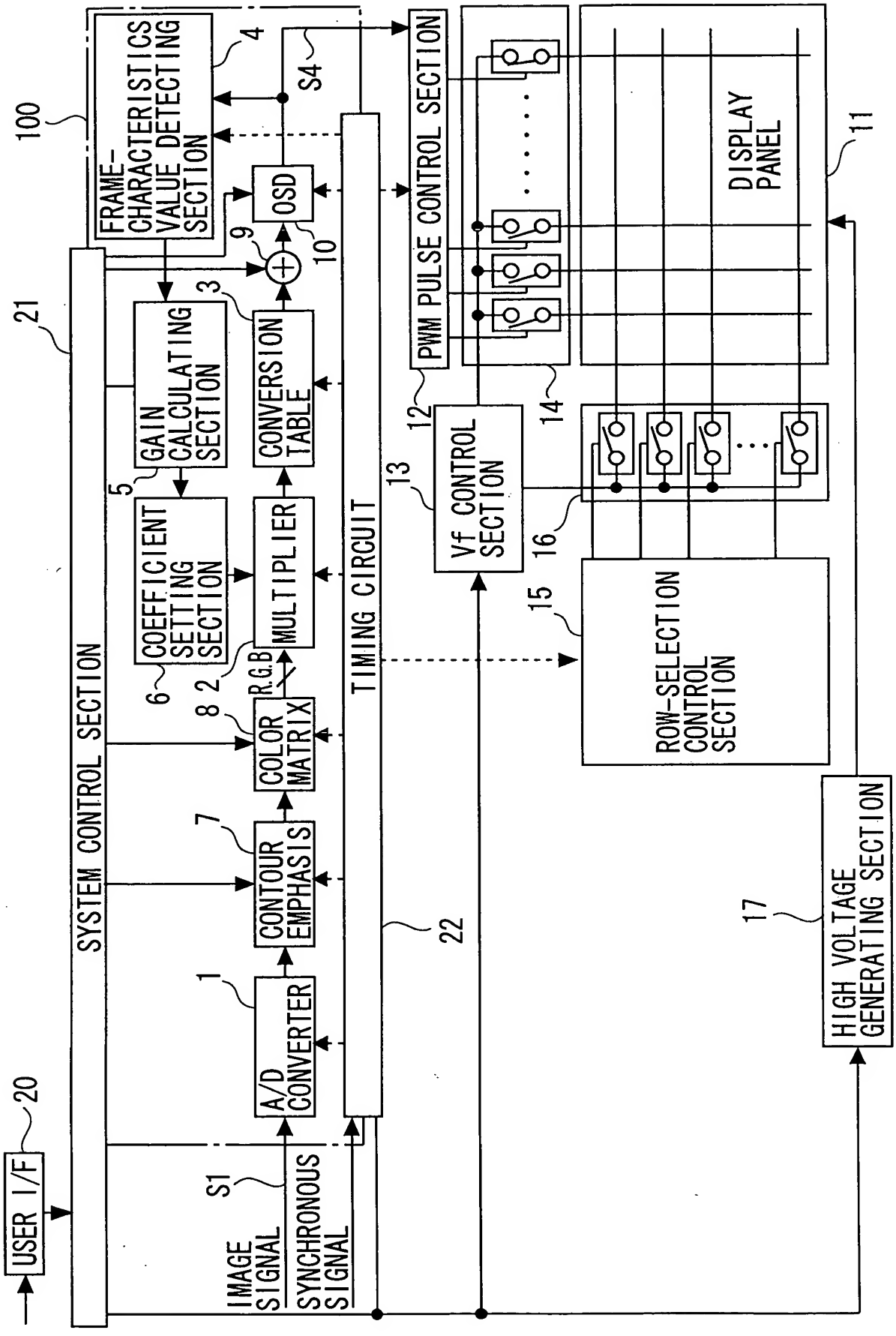

100
FRAME-CHARACTERISTICS VALUE DETECTING SECTION
4
S4
OSD
9
10
GAIN CALCULATING SECTION
3
CONVERSION TABLE
5
COEFFICIENT SETTING SECTION
6
MULTIPLIER
8 2
R.G.B
COLOR MATRIX
7
CONTOUR EMPHASIS
1
A/D CONVERTER
21
SYSTEM CONTROL SECTION
TIMING CIRCUIT
22
PWM PULSE CONTROL SECTION
12
Vf CONTROL SECTION
13
DISPLAY PANEL
11
14
16
ROW-SELECTION CONTROL SECTION
15
HIGH VOLTAGE GENERATING SECTION
17
USER I/F
20
S1
IMAGE SIGNAL
SYNCHRONOUS SIGNAL

FIG. 3

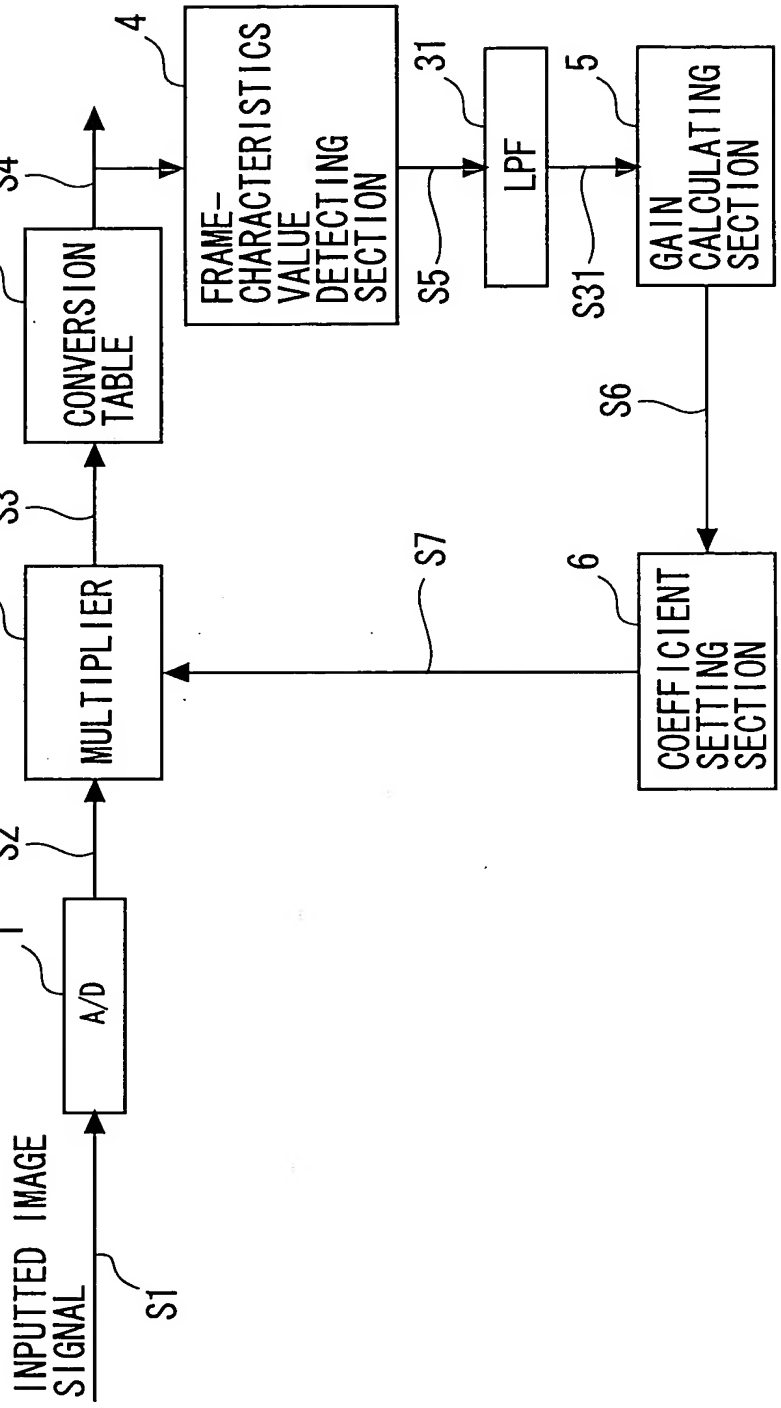

INPUTTED IMAGE SIGNAL
S1
1
A/D
S2
2
MULTIPLIER
S3
3
CONVERSION TABLE
S4
4
FRAME-CHARACTERISTICS VALUE DETECTING SECTION
S5
31
LPF
S31
5
GAIN CALCULATING SECTION
S6
S7
6
COEFFICIENT SETTING SECTION

FIG. 4

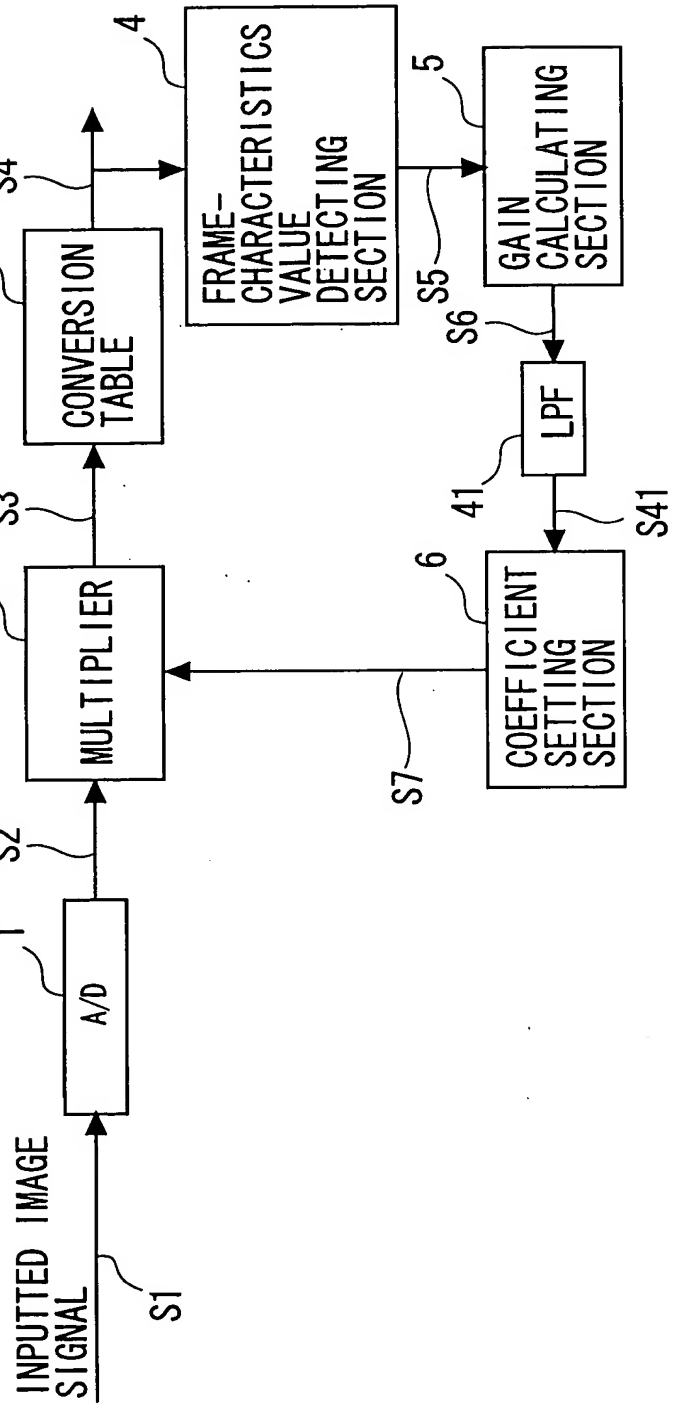

INPUTTED IMAGE SIGNAL
S1
1
A/D
S2
2
MULTIPLIER
S3
3
CONVERSION TABLE
S4
4
FRAME-CHARACTERISTICS VALUE DETECTING SECTION
S5
5
GAIN CALCULATING SECTION
S6
41
LPF
S41
6
COEFFICIENT SETTING SECTION
S7

FIG. 5

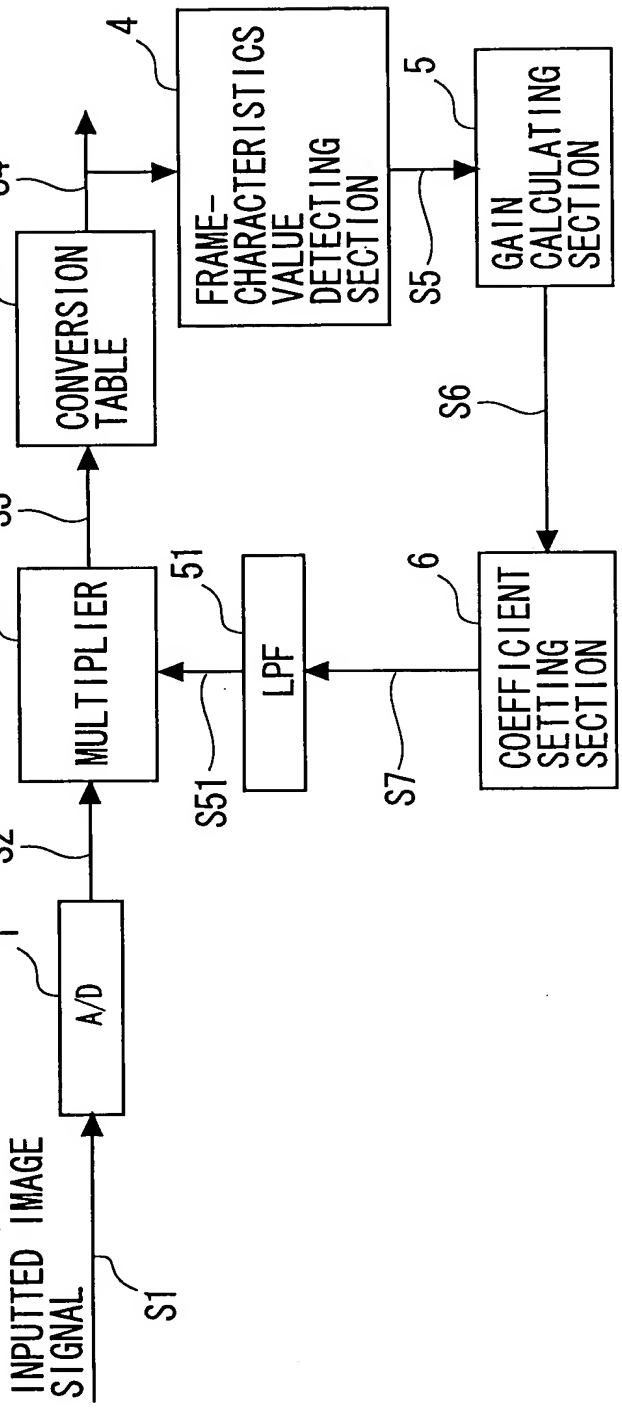

INPUTTED IMAGE SIGNAL
S1
1
A/D
S2
2
MULTIPLIER
S3
3
CONVERSION TABLE
S4
4
FRAME-CHARACTERISTICS VALUE DETECTING SECTION
S5
5
GAIN CALCULATING SECTION
S6
6
COEFFICIENT SETTING SECTION
S7
51
LPF
S51

FIG. 6

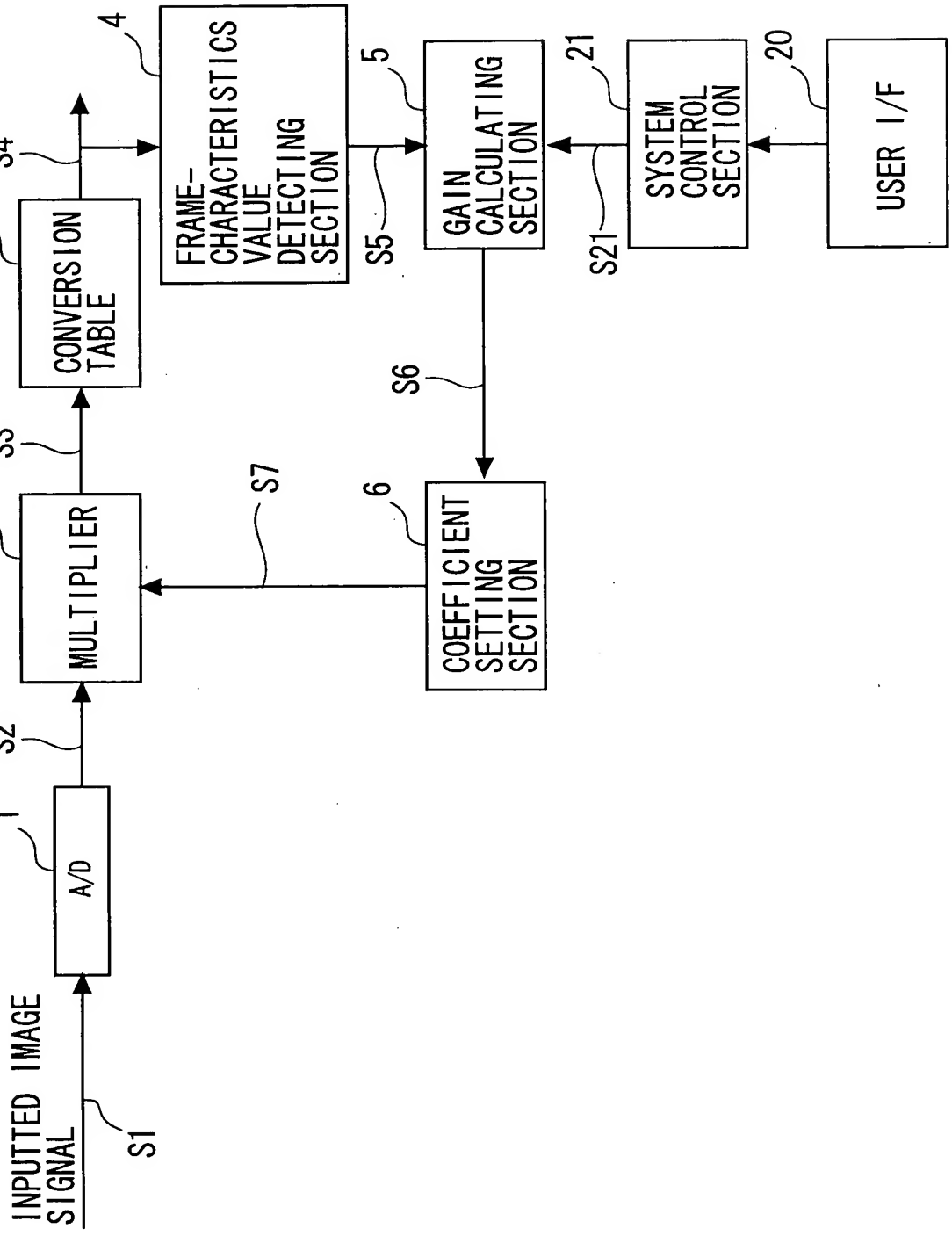

INPUTTED IMAGE SIGNAL
S1
A/D
1
S2
MULTIPLIER
2
S3
CONVERSION TABLE
3
S4
FRAME-CHARACTERISTICS VALUE DETECTING SECTION
4
S5
5
GAIN CALCULATING SECTION
S6
6
COEFFICIENT SETTING SECTION
S7
S21
21
SYSTEM CONTROL SECTION
20
USER I/F

FIG. 7

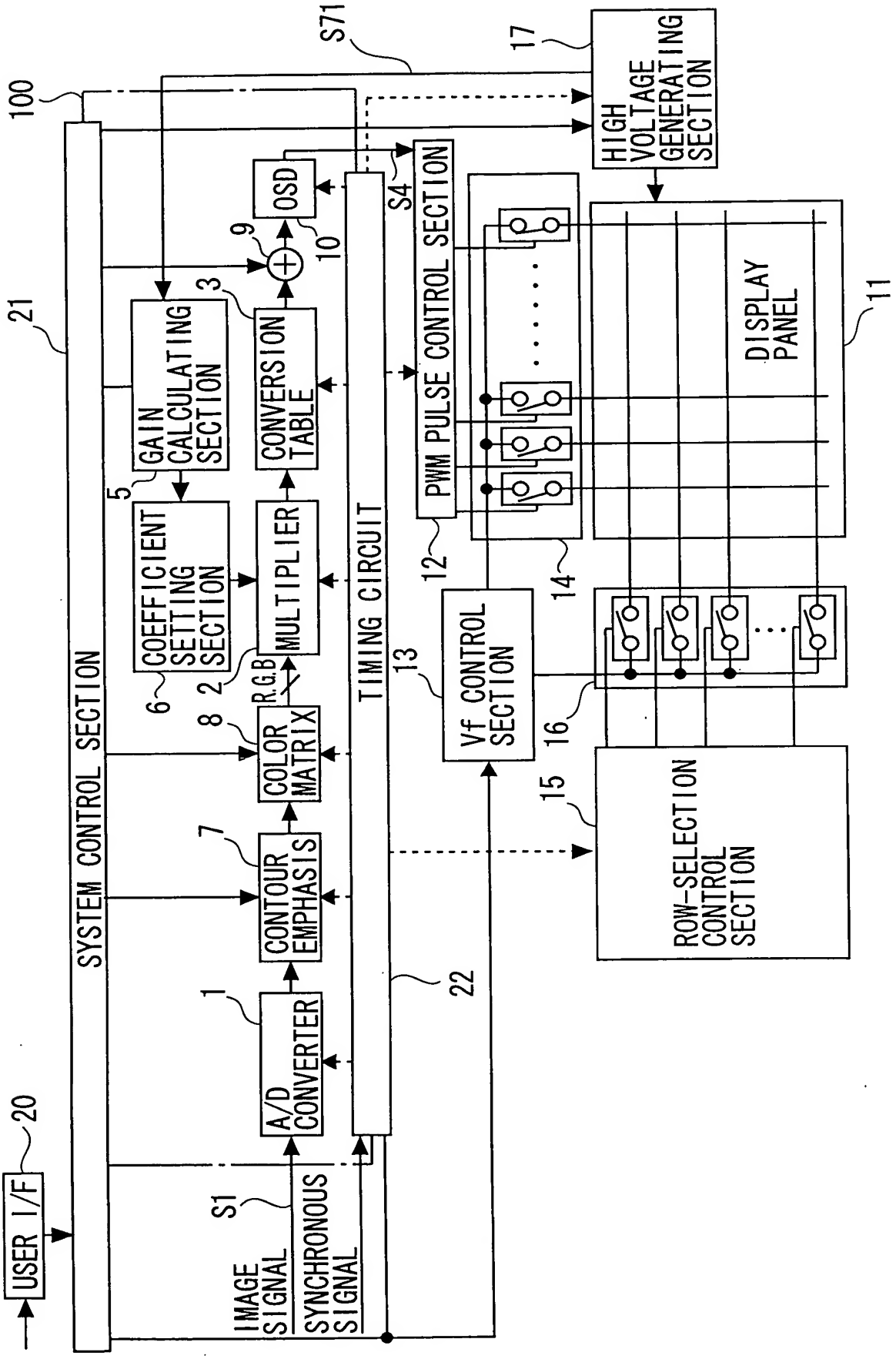

100
S71
17
HIGH VOLTAGE GENERATING SECTION
OSD
10
9
S4
PWM PULSE CONTROL SECTION
DISPLAY PANEL
11
21
GAIN CALCULATING SECTION
5
3
CONVERSION TABLE
COEFFICIENT SETTING SECTION
6
MULTIPLIER
2
R.G.B
8
COLOR MATRIX
TIMING CIRCUIT
12
14
13
Vf CONTROL SECTION
16
15
ROW-SELECTION CONTROL SECTION
SYSTEM CONTROL SECTION
7
CONTOUR EMPHASIS
1
A/D CONVERTER
22
20
USER I/F
S1
IMAGE SIGNAL
SYNCHRONOUS SIGNAL

FIG. 8A

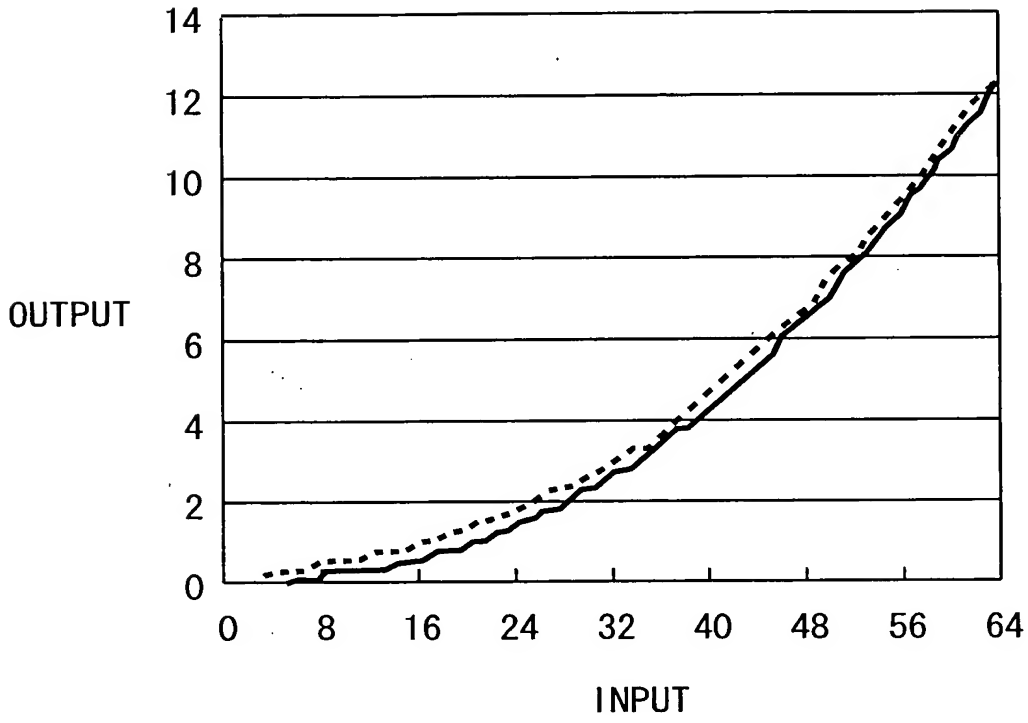

14
12
10
8
6
4
2
0
OUTPUT
0
8
16
24
32
40
48
56
64
INPUT

FIG. 8B

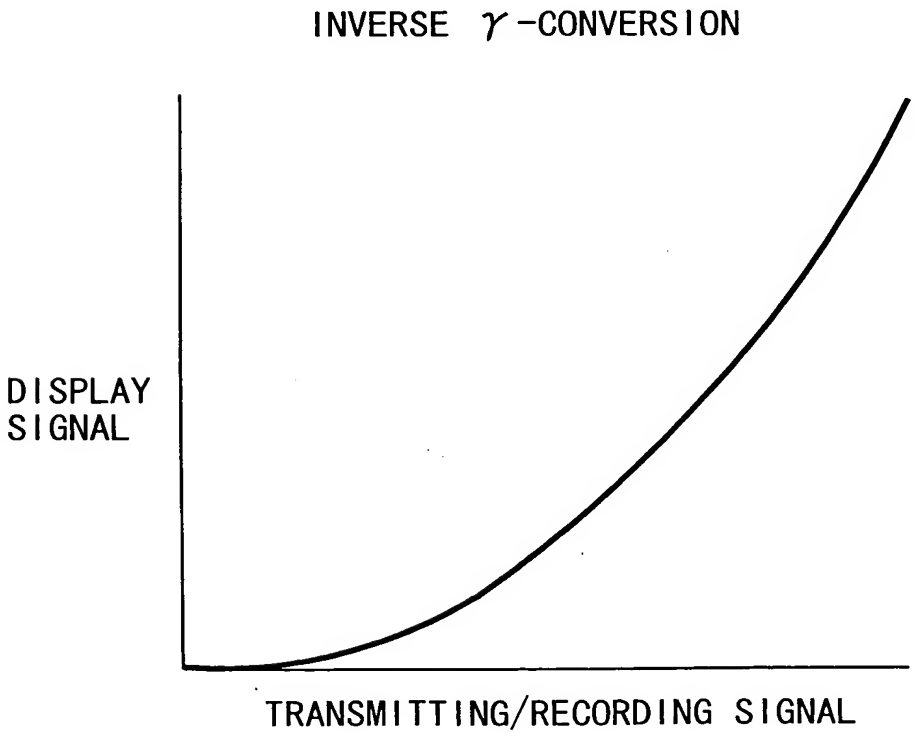

INVERSE γ-CONVERSION
DISPLAY SIGNAL
TRANSMITTING/RECORDING SIGNAL

FIG. 9

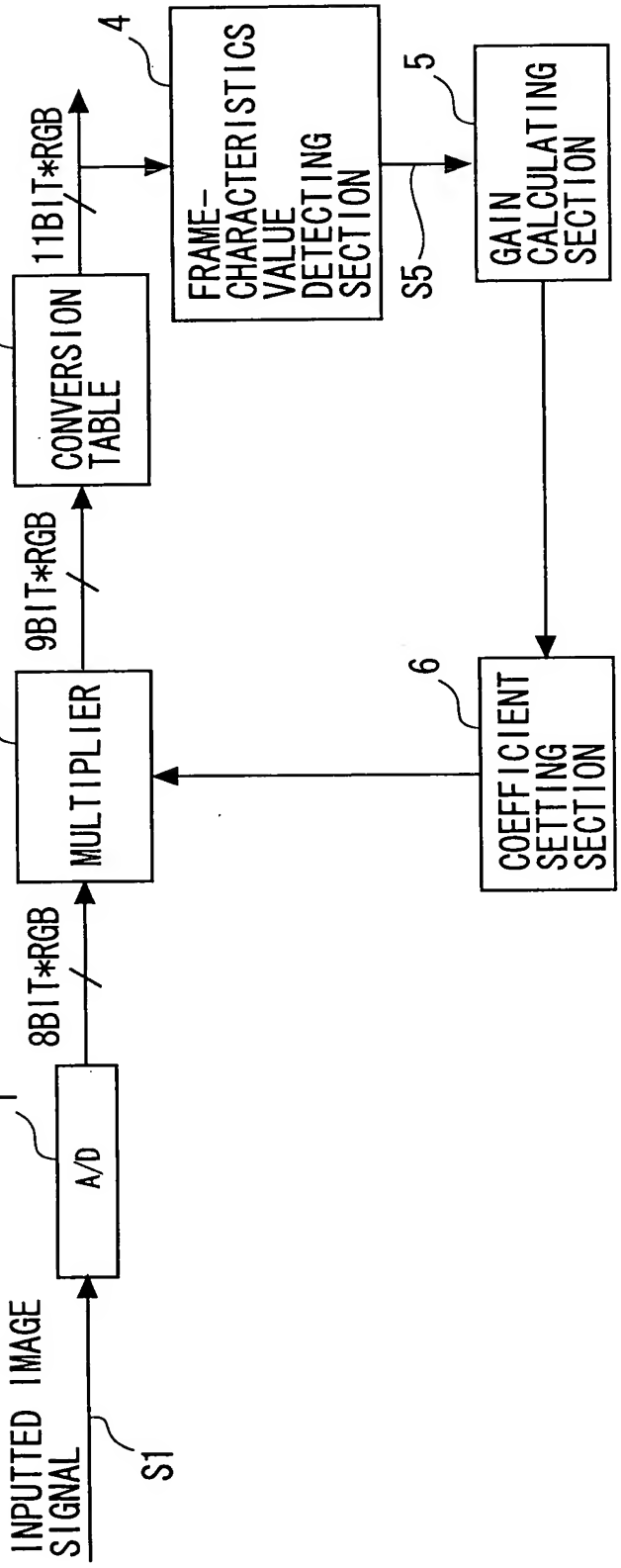

INPUTTED IMAGE SIGNAL
S1
1
A/D
8BIT*RGB
2
MULTIPLIER
9BIT*RGB
3
CONVERSION TABLE
11BIT*RGB
4
FRAME-CHARACTERISTICS VALUE DETECTING SECTION
S5
5
GAIN CALCULATING SECTION
6
COEFFICIENT SETTING SECTION

FIG. 10

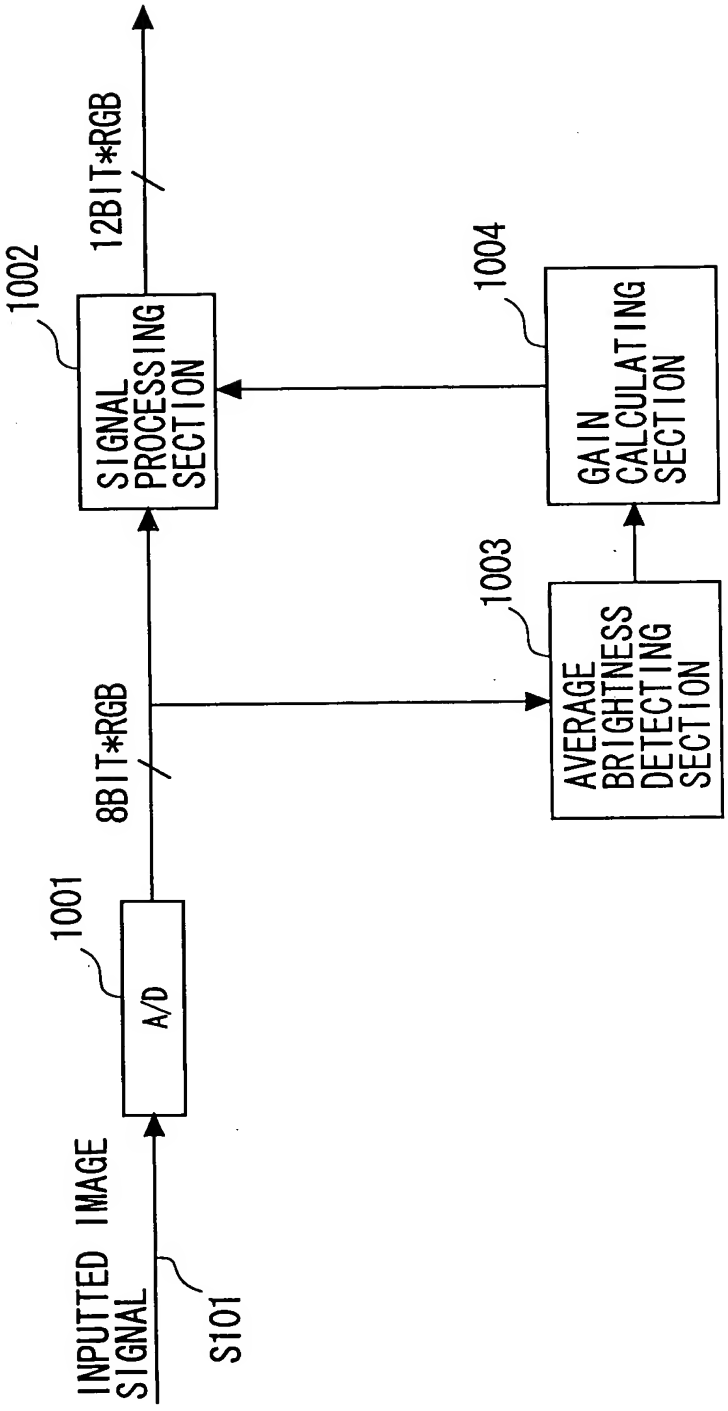

INPUTTED IMAGE SIGNAL
S101
1001
A/D
8BIT*RGB
1002
SIGNAL PROCESSING SECTION
12BIT*RGB
1003
AVERAGE BRIGHTNESS DETECTING SECTION
1004
GAIN CALCULATING SECTION

FIG. 11

CONFIGURATION / INVERSE-γ	CONVENTIONAL CONFIGULATION	THE PRESENT CONFIGULATION
POWER OF 2.2	15BIT	15BIT
EQUATION 6	12BIT	11BIT

FIG. 12

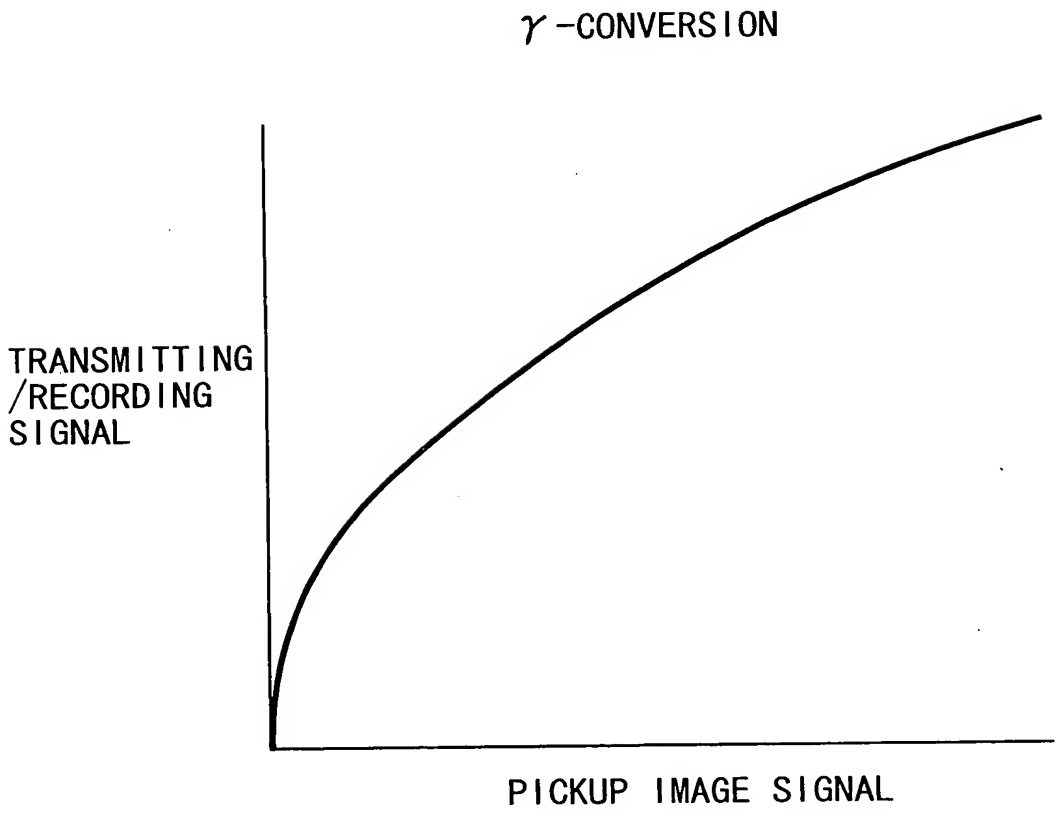

γ-CONVERSION
TRANSMITTING /RECORDING SIGNAL
PICKUP IMAGE SIGNAL

FIG. 13

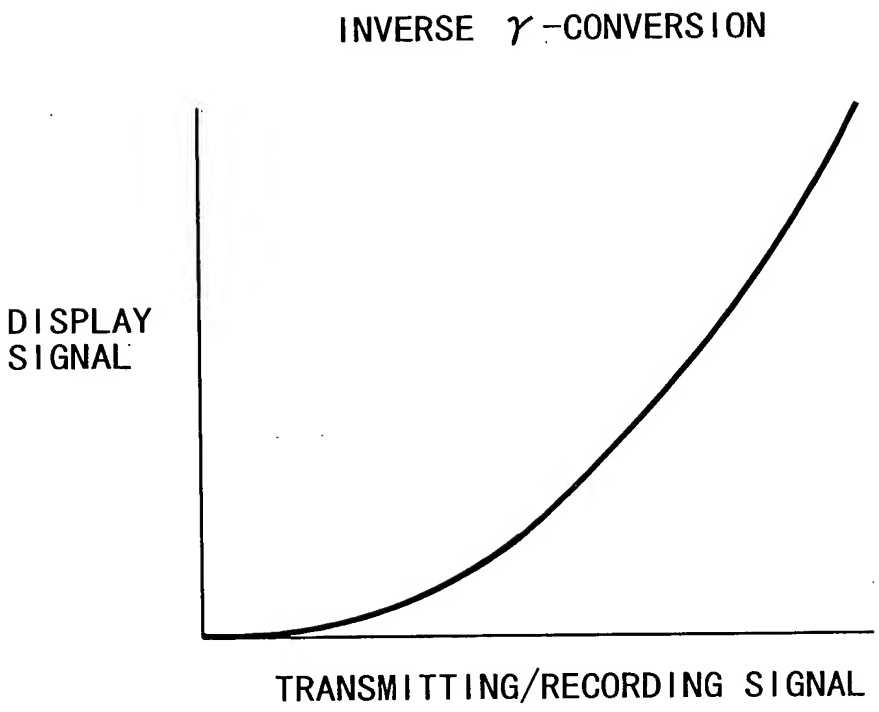
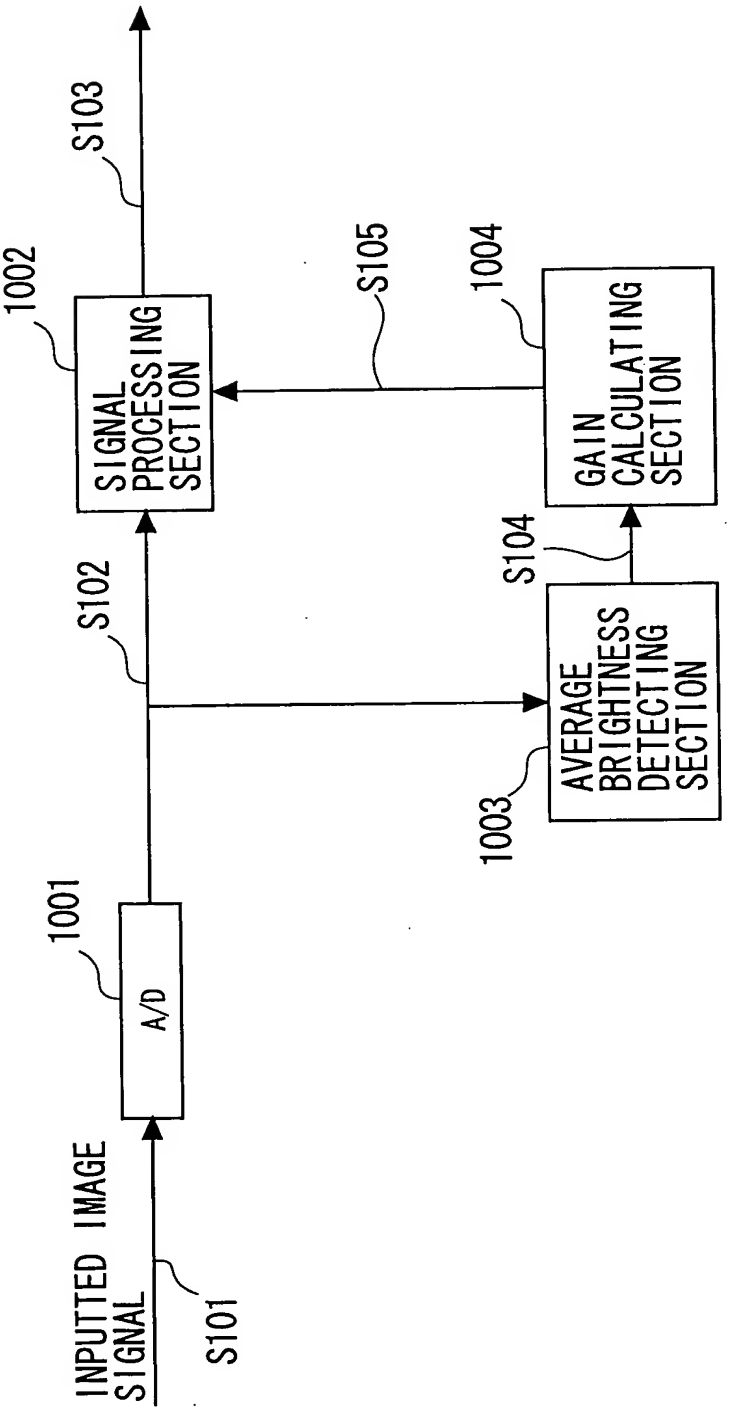

INVERSE γ-CONVERSION
DISPLAY SIGNAL
TRANSMITTING/RECORDING SIGNAL

FIG. 14


INPUTTED IMAGE SIGNAL
S101
1001
A/D
S102
1002
SIGNAL PROCESSING SECTION
S103
1003
AVERAGE BRIGHTNESS DETECTING SECTION
S104
1004
GAIN CALCULATING SECTION
S105